5. UI Module

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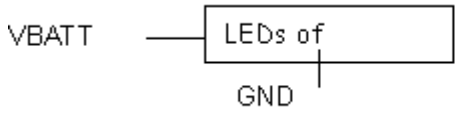
UI Module

Introduction

The UI module LU3 is a two-layer PWB, which is connected to the system/Main PWB with a 14-pin spring connector.

Functional Description

Power Distribution Diagram



Keyboard Matrix

ROW/COL	0	1	2	3	4
0	NC	Side Key	Send	End/Mode	Side Key
1	NC	Soft left	Up	Down	Soft Right
2	NC	1	4	7	*
3	NC	2	5	8	0
4	PWR switch	3	6	9	#

NC = Not connected

Power Key

A micro switch is used as a power key on the UI module. The circuitry includes a micro switch and two diodes, which are needed for the MAD interface. The power key, connected to ROW4, is connected to CCONT and is active in Low state. The power key circuit is visible in the Display Circuit diagram.

Keyboard

Keyboard backlighting is provided by six LEDs that are compatible with CL191-B1. Backlighting is on when the Light signal is on the High state. The LED color for the keyboard is blue.

Pin	Line symbol	Parameter	Minimum	Typical/ Nominal	Maximum	Unit	Notes
2	VBAT	Battery voltage	3.2 50	3.6 55	4.2 60	V mA	

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The Engine Interface

Pin	Line symbol	Parameter	Minimum	Typical/ Nominal	Maximum	Unit	Notes
1	NC						
2	VBAT	Battery voltage	3.2	3.6	4.2	V	
3	NC	Keyboard matrix row 0	0 0.7 x VBB				
4	ROW4	Keyboard matrix row 0	0 0.7 x VBB		0.3 x VBB VBB	V	LOW HIGH
5	ROW3	Keyboard matrix row 0	0 0.7 x VBB		0.3 x VBB VBB	V	LOW HIGH
6	COL 2	Keyboard matrix row 0	0 0.7 x VBB		0.3 x VBB VBB	V	LOW HIGH
7	ROW2	Keyboard matrix row 0	0 0.7 x VBB		0.3 x VBB VBB	V	LOW HIGH
8	COL 1	Keyboard matrix row 0	0 0.7 x VBB		0.3 x VBB VBB	V	LOW HIGH
9	ROW0	Keyboard matrix row 0	0 0.7 x VBB		0.3 x VBB VBB	V	LOW HIGH
10	KBD_LED	Current sink for key-board LEDs	50	55	60	mA	
11	ROW1	Keyboard matrix row 0	0 0.7 x VBB		0.3 x VBB VBB	V	LOW HIGH
12	COL 3	Keyboard matrix row 0	0 0.7 x VBB		0.3 x VBB VBB	V	LOW HIGH
13	COL 4	Keyboard matrix row 0	0 0.7 x VBB		0.3 x VBB VBB	V	LOW HIGH
14	COL 0	Keyboard matrix row 0 Used for flip identifica-tion	0 0.7 x VBB		0.3 x VBB VBB	V	LOW HIGH

NC = Not connected

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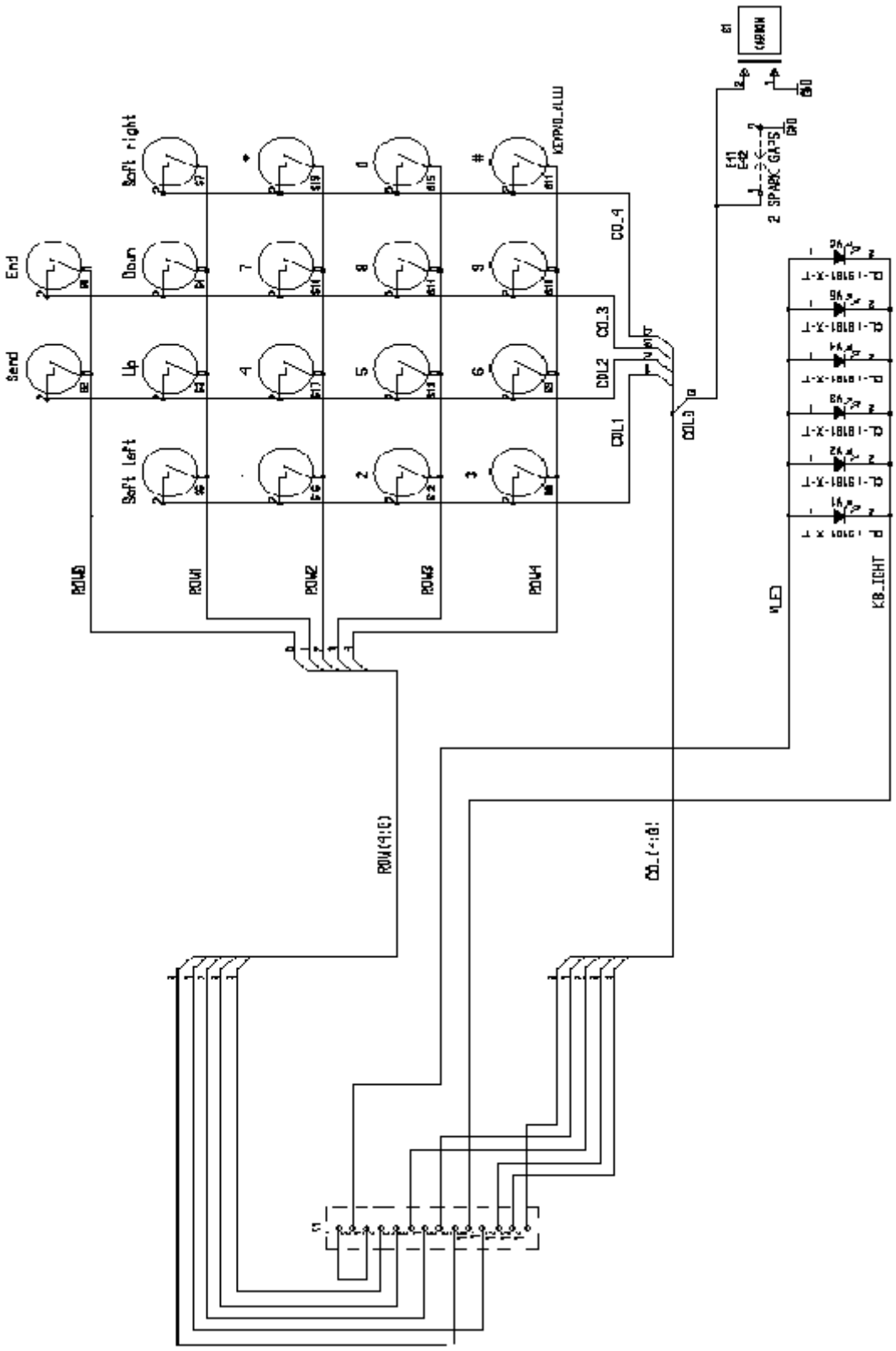
UI Module Circuit Diagram



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